

CLAIMS

1. A method for agglomerating a poly-3-hydroxyalkanoic acid suspended in liquid mixture

5 which comprises suspending particles of the poly-3-hydroxyalkanoic acid in a hydrophilic solvent or a mixture comprising water and a hydrophilic solvent, and stirring the obtained suspension at a temperature not more than the boiling point of said suspension.

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2. The method according to Claim 1, wherein the poly-3-hydroxyalkanoic acid is a copolymer constituted of at least two species of monomers selected from the group consisting of 3-hydroxypropionate,
15 3-hydroxybutyrate, 3-hydroxyvalerate, 3-hydroxyhexanoate, 3-hydroxyheptanoate and 3-hydroxyoctanoate.

3. The method according to Claim 1, wherein the poly-3-hydroxyalkanoic acid is a copolymer
20 derived from D-3-hydroxyhexanoate and one or more other D-3-hydroxyalkanoic acids.

4. The method according to Claim 3, wherein the poly-3-hydroxyalkanoic acid is a binary
25 copolymer derived from D-3-hydroxyhexanoate and D-3-hydroxybutyrate or a ternary copolymer derived from D-3-hydroxyhexanoate, D-3-hydroxybutyrate and D-3-hydroxyvalerate.

30 5. The method according to any one of Claims 1 to 4, wherein the poly-3-hydroxyalkanoic acid is produced by a microorganism, and separated and purified from said microorganism.

35 6. The method according to Claim 5,

wherein the microorganism producing the poly-3-hydroxyalkanoic acid belongs to the genus *Aeromonas*.

5 7. The method according to Claim 6,
 wherein the microorganism producing the poly-3-hydroxyalkanoic acid is *Aeromonas caviae* or *Aeromonas hydrophila*.

10 8. The method according to Claim 5,
 wherein the microorganism producing the poly-3-hydroxyalkanoic acid is a cell transformed by a gene in the poly-3-hydroxyalkanoic acid synthase group, derived from *Aeromonas caviae*.

15 9. The method according to Claim 5,
 wherein the microorganism containing a poly-3-hydroxyalkanoic acid is *Ralstonia eutropha* transformed by a gene in the poly-3-hydroxyalkanoic acid synthase group, derived from *Aeromonas caviae*.

20 10. The method according to any one of Claims 1 to 9,
 wherein the particle of the poly-3-hydroxyalkanoic acid is obtainable by, while stirring a suspension of a poly-3-hydroxy alkanoic acid-containing microbial cells,
25 solubilizing cell constituent substances other than the poly-3-hydroxyalkanoic acid by adding an alkali simultaneously with physical disruption, to separate the poly-3-hydroxyalkanoic acid.

30 11. The method according to any one of Claims 1 to 10,
 wherein the hydrophilic solvent is one selected from the group consisting of alcohols, ketones, nitriles, amides and ethers.

35 12. The method according to Claim 11,

wherein the alcohol is methanol or ethanol, the ketone is acetone, the nitrile is acetonitrile, the amide is dimethylformamide, and the ether is tetrahydrofuran.

- 5 13. An aggregate of poly-3-hydroxyalkanoic acids
 which is formable by adhesion among
poly-3-hydroxyalkanoic acid microparticles having a particle
diameter of at least 0.1 μm and at most 1.5 μm .

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